Wisconsin Department of Commerce

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(1-800-435-7287)

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SELF-ASSESSMENT GUIDE FOR SMALL MANUFACTURERS

CONTENTS;

USING THIS GUIDE

This self-assessment guide is designed to help a small manufacturing firm conduct a basic review of its practices and look for ways to improve its competitive position. It is written for firms whose general managers are, in most cases, also the majority owners.

While this guide is inexpensive and easy to use, and just might point the way to some effective improvements, it does not begin to be comprehensive or in-depth. There is no substitute for outside help when you take on a modernization or improvement effort. See the resources pages in the back for assistance providers and manufacturing extension services.

ARE YOU A TARGET USER OF THE GUIDE?

If you are one of the people for whom this Self-Assessment Guide is intended, your are either the owner-operator or general manager of a very small manufacturing company. You probably manage fewer than 20 employees, and sell your products regionally or even locally. Most likely, you sell your output to other, larger manufacturers who use it in their products.

Given your very small management team and the huge demands on your time, it would be useless to start improving your operations by inviting in a team of consultants to pore over your facilities and processes, and tying up your personnel. Nevertheless, you probably don't want to put off making some of the changes that can help you compete and grow. If all of this is true about you, then this Self-Assessment Guide is for you.

STRUCTURE OF THE GUIDE

The chapters contain questions related to the subject. When you answer the question, usually with a "YES" or "NO", refer to the points to consider on the right-hand column. They provide food for thought and may prompt you to try some new approaches.

The topic, "Planning Your Changes" provides some suggestions for prioritizing your actions. Obviously, you don't want to do everything at once! If you follow the prioritizing process, you should be able to reduce the chances of beginning a project that would best be delayed until other work is completed.

Finally, the last topic, "Assistance Providers for Manufacturers" provides names of some service providers and resources dedicated to serving small and medium manufacturers like you. We urge you to try contacting them if you want help in implementing some changes you have identified.

AUTHORS OF THIS GUIDE

The Wisconsin Department of Commerce Manufacturing Assessment Center produced this guide, and is solely responsible for its content. The guide was written and edited by Karl Arps, Director of Commerce's Bureau of Manufacturing and Technology Development and the Manufacturing Assessment Center.

Content for the Self-Assessment Guide was compiled by the editor, with the assistance of Barry Glashagel and Richard Welsch, Assessment Engineers with the Manufacturing Assessment Center.

Between them, Karl, Barry, and Dick have over 75 years of manufacturing experience, mostly in small Wisconsin companies. Their expertise ranges from product design to value analysis, accounting to information systems, marketing to production efficiency, and maintenance to R&D.

ABOUT THE MANUFACTURING ASSESSMENT CENTER

The Wisconsin Department of Commerce Manufacturing Assessment Center provides assessment and strategy development facilitation as a partner in the Wisconsin Manufacturing Extension Partnership.

The Manufacturing Assessment Center has created or adopted a number of tools to help small to medium manufacturers identify opportunities for improvement. They include:

- CompanyView: a quick look at the critical issues facing a company.
- QuickView: a very simple tool for benchmarking manufacturing practices.
- Team PlanView: a comprehensive assessment and planning tool.
- PeopleView: a semi-custom employee survey.
- Performance Benchmarking: an in-depth benchmark of company performance.

For more information on any of these tools, contact:

Wisconsin Department of Commerce
Manufacturing Assessment Center
P.O. Box 7970
Madison, WI 53707-7970

Phone: (608) 266-0165, Fax: (608) 267-0436,

COMPANY SURVIVAL

SUCCESSION: Will your company survive your absence or a major upheaval?

Can someone else effectively run the company if you die, get sick, or are injured? __YES ___NO

Many entrepreneurs forget to prepare for emergencies. They run the risk of losing their investments if bad luck happens.

Consider training a key employee to do all of the critical day-by-day tasks you do now. Not only will that provide long-term continuity; it will help you relax when you take a vacation.

Do you have a plan to transfer control of the company when you retire? __YES ___NO

Make a plan, and stick with it!

Are you going to shift control to a son or daughter? Could that lead to sibling rivalry? Consider inheritance tax issues. Talk to the people you want to take over. Then visit an estate planner to make sure that your wishes can be carried out.

And when you do retire, let go! Nothing is worse for a company than a confused chain of command. If you come back to the office periodically, some long-time employee will probably ask you for a decision on something. Tell them to go see Junior, and don't answer their question.

Are you trying to sell the company? __YES ___NO

What actions are you taking today to benefit the sale? What if you can't sell -- will those actions harm the company's future?

Many owners, once they plan to sell, stop operating the company for growth. While it may make sense to avoid huge, high-risk capital investments under those circumstances, keep up the maintenance work and small improvements. And don't stop selling products! A full order book is usually your best tool for selling a business.

You can't count on a quick sale, and many purchase offers have been known to fall through. If you have to keep operating, you'll want the company to be profitable.

COMPANY SURVIVAL

REGULATION: Could your company be closed for non-compliance?

Are there any significant amounts of air or water pollution or hazardous waste resulting from your operations? __YES ___NO

Try getting a free assessment of your waste streams from an unbiased, non-regulatory expert. While there is no guarantee that you will then be "legal", it can reduce your financial risk.

Equally valuable, most companies find that there is money to be saved or earned by understanding and properly managing waste streams.

Are you sure that there are no workplace hazards that pose an imminent danger to life and limb?

__YES ___NO

Try getting a free safety consultation from an unbiased, non-regulatory expert. While there is no guarantee that you will then be "legal", it can reduce your financial risk. Far more importantly, it can give you peace of mind about the safety of your friends and colleagues.

There is also a potential financial benefit, too. If you can improve your safety record, you may qualify for lower workers' compensation rates and other insurance premiums.

Are you concerned that your hiring or other personnel practices could lead to legal action?

__YES ___NO

In today's regulatory climate, it would be foolish to discriminate. Furthermore, the personnel market today is tight -- don't make the mistake of denying yourself access to the full labor pool.

If you feel uncomfortable setting up your own fair hiring system, consider working with a placement agency or temporary-to-hire firm to help you. Let them know you want to be fair and legal but need help to ensure that the best candidates are hired.

COMPANY SURVIVAL

MARKETS: How vulnerable are your sales?

Is your customer list limited?

Do your sales rely heavily on any one or two customers? __YES ___NO

It's easy to fall into the trap of relying on one or two major clients. Try reviewing your costs to be sure that your biggest customers' sales are at least profitable. Then get advice on expanding your customer base. In general terms, your Small Business Development Center can help, but you may need a marketing consultant to develop a specific strategy.

Do you offer unique technology to your customers? __YES ___NO

Are you relying on maintaining a technological advantage over your customers and competitors?

__YES ___NO

Do you conduct ongoing research to upgrade that technology? At the rate technology advances, your customers may soon be able to afford to do for themselves what you are doing for them today. You must keep advancing to stay ahead of the market. Be sure that someone in the company is responsible for technology development and ongoing research.

And be prepared to pull the plug on machinery or methods that no longer provide a unique advantage to you. If you want to play in the field of advanced technology, you have to be nimble AND gutsy.

COMPANY SURVIVAL

FINANCES: Can you afford to keep operating?

Can you read and analyze your company's financial statements? __YES ___NO

If you are not comfortable with analyzing financial statements, try working with a public accountant or financial advisor. Develop your own personal "rules of thumb" to see how your company is performing.

You have to have these records anyway to satisfy the IRS, so you might as well use them to help manage.

Is your balance sheet strong, showing a healthy owner's equity? __YES ___NO

If your balance sheet is weak, avoid unnecessary expenditures for awhile. Review your pricing policy to improve margins. If your accountant can't help you find ways to generate more owner's equity, try contacting your nearest SCORE chapter.

Meanwhile, don't buy any new equipment or sign any new large leases.

Are you generating positive cash flows from operations, reducing the need for borrowing?
__YES ___NO

Obviously, the best way to generate cash to buy material and equipment for growth is through profits from ongoing operations. If you are not making a gross profit, you probably are not generating much positive cash flow, either.

Even if you are profitable, you may need to pay attention to collecting on your receivables on time and getting favorable terms on accounts payable so that there will be a cash surplus on a regular basis.

Finally, remember that shipping on time is the best way to shorten the time between spending and collecting. Check some of the points under the Manufacturing Operations topic for ideas in reducing production lead-time.

Work with your banker to get advice on structuring the company for the best possible credit rating. This will help you with suppliers as well as lenders. If you really know your operations, an available (but unused) line of credit can allow you to take advantage of a sudden market opportunity.

STRATEGIC PLANNING

Do you have a business plan for the current year and the year coming up? (Such a plan should include sales and financial goals, action steps, and major projects that will help achieve those goals.) __YES ___NO

Take the time to plan your short-term future. If you don't plan your work, how can you work your plan?

In some cases, budgets can be helpful in avoiding cost overruns.

Goals and budgets are useful guides for managers, supervisors, and employees to help them operate your company

Have you ever developed a long-range strategic plan? This plan should define your company's:

- **Mission (what you do, who you serve, where you operate)**
- **Vision (what the company of the future should look like)**
- **Values (what's important to you in how you operate)**

__YES ___NO

With a sound long-range plan, it is easier to keep working toward the planned future. Today's decisions can take tomorrow's goals into account.

Knowing the mission and the values helps to prevent wasteful distractions.

Have you told your employees, customers, suppliers, and other key players about your plans? Do they understand where you are trying to take your company? __YES ___NO

It is much easier to get you employees and your strategic partners (investors, bankers, customers, and suppliers) to help you succeed if you communicate your plan to them. This communication needs to be an ongoing activity, not just a one-time presentation.

Do you use your employees and other strategic partners to help you formulate your plans?

__YES ___NO

There are two significant benefits from involving employees and other strategic partners:

- It is harder to overlook important considerations.
- By being a part of the plan, they are likelier to buy into its goals.

Getting everyone involved effectively is not easy. Usually it is best to engage outside help, at least at the start.

SALES AND MARKETING

Sales and Marketing Responsibility

Is there one individual responsible for sales and marketing in your company?

Are sales and marketing the primary duties for that individual? __YES ___NO

If the CEO also does most of the selling and marketing, he or she is not free for long-range planning and/or organizational development.

Without sales, a company cannot succeed. There's nothing to produce unless there's an order. Whoever has the sales and marketing responsibility must treat it as his or her first priority. If you feel you have to hire or promote someone to do that job, remember that sales work today is based on relationship selling. Look for a "people person" who has demonstrated the ability to work with others to get things done.

SALES AND MARKETING PLANNING

Do you have a sales and marketing plan that supports your business plan for the coming year?

Such a plan should spell out:

- Sales goals for the year
- How new orders are going to be pursued
- What promotional efforts will be made to help achieve sales goals

__YES ___NO

A sales and marketing plan is a key component of any business plan. Sales goals are, in effect, the forecast of sales dollar volume. They help the company stay on track during the course of the year. When sales are falling short of the goal, the company can act to provide additional promotion, cut back on expenses, or adjust production schedules.

The plans to pursue the sales goals help employees understand the tasks to done and insures proper management of the promotional budget needed to support sales and marketing efforts.

CUSTOMER FEEDBACK

Do you know what your customers are thinking about your products and services?

Do you proactively ask for their opinions, or do you assume that, if they're not complaining, they must be happy? ___YES ___NO

A proactive effort to get customer feedback can tell you a lot about how your firm is viewed in the marketplace. Regular phone calls to key clients can measure the level of overall satisfaction, as well as specific information about delivery, quality, and cost. If you typically ship many small orders to many companies, you may want to consider simple, periodic surveys. Some firms send a survey return card with every order.

Many companies only find out about customer dissatisfaction after the customers have changed to new suppliers. Don't wait for the bad news.

MANUFACTURING OPERATIONS

Control of Schedule

Are you able to give your customers accurate delivery promises?

Are you able to keep those promises nearly all of the time? ___YES ___NO

There are several ways to improve your knowledge and accuracy of completion dates. For example, you could spend a fortune on a computer system and a team of expediters. But the simplest way might be to shorten the time a product spends in the shop so that completion date and time are obvious. Obviously, this approach also reduces lead times so that customer deliveries are faster.

Ideally, you would want to have work-in-process inventory (WIP) spend as little time in your plant as possible. If you have lead times of days or weeks for products with a few person-hours of direct labor, you have opportunities for significant savings.

This type of approach is often called "Pull Scheduling", "Just-In-Time (JIT)", or "Flow" manufacturing. Most larger companies have adopted some form of flow scheduling because of the benefits mentioned above. Consider giving a serious look at possible benefits for you.

BOTTLENECKS

Are there any workstations in your operations where unusually large amounts of inventory are staged, waiting for an opening in the schedule? ___YES ___NO

Inventory pile-ups often indicate a production bottleneck. You will want to make sure that bottleneck operations are fully staffed so that other operations won't have to wait.

If you already are running bottleneck operations at full speed, full time, you may want to consider purchasing additional machines to increase capacity. First, review how you might eliminate or streamline the bottleneck to minimize its impact.

Remember that the cost of running your bottleneck operation is equal to the cost of running your entire plant, since it is controlling the entire output. Any money you spend increasing its through-put increases your entire plant's output.

SET-UP TIMES

Think about the time required for a typical set-up and the run time for the same job.

Does it seem to take longer to set up a job than to run it?

Are set-ups taking forever on your bottleneck operations? ___YES ___NO

If it takes longer to set-up than to run an operation, an opportunity exists for savings. Rapid set-up and changeover techniques can increase capacity, save money, and shorten lead times. Even where it is impossible to avoid the costs of complex set-ups, it may be possible to do some of that work ahead of time by using a separate set-up person.

The important thing is to reduce the amount of time your expensive machines spend shut down, not producing money.

Some operations lend themselves to CNC machines, which can greatly shorten set-up times. Consider CNC in your long-term plans.

PREVENTIVE MAINTENANCE

Do machines break down at the worst possible times, causing delays in your production and shipping dates? ___YES ___NO

Losing production time in the entire shop because one machine breaks down can be devastating. At least for bottleneck operations, preventive maintenance can be a cost-effective investment.

There are many ways to do preventive maintenance. The most well known method is laid out in the owner's manual in your car's glove compartment. Instead of miles, use machine hours, or weeks. Then type up a preventive maintenance sheet for what should be done weekly, monthly, and so on.

Then follow it !!! Also, consider doing the maintenance nights or weekends so critical operations can keep running normal hours.

QUALITY MANAGEMENT

Quality Standards

Are you ISO9000 or QS9000 registered? ___YES ___NO

If not, are you considering becoming registered?

Have your customers indicated a desire for you to become registered? ___YES ___NO

If not interested in ISO, do you have a comprehensive quality management plan? ___YES ___NO

ISO9000 is an international standard for organizing the quality management function. Registration is required of companies who sell in certain markets in Europe and other foreign countries.

QS9000 is an expansion of the ISO standard, being required of most suppliers to the U.S. automotive companies.

ISO9000 provides a useful model for an overall, comprehensive quality management plan, even if registration is not going to be sought.

Prevention, not Detection

How do you ensure that customers only receive quality products:

- Inspection by production operators
- Quality control inspectors
- First-piece inspection
- Random sampling
- Final inspection of finished product

___YES ___NO

The most successful quality programs try to focus inspection efforts on inputs to the production process. For example:

- Inspect incoming material before accepting delivery
- Inspect equipment for accuracy and repeatability
- Provide and evaluate operator training

When inspections do reveal problems, significant effort should go into preventing future recurrences, not just reworking defective parts.

CALIBRATION

Where measurements are required, do you control and record the accuracy of measuring instruments though a formal calibration program? ___YES ___NO

For some customers, tolerances do not call for a formal calibration program. However, if a customer requires precision, your instruments must be calibrated regularly and traced to accepted national standard. Check your customers' requirements.

Tape measures, calipers, gauges, and other instruments owned by employees will be subject to the same calibration requirements as company tools.

COSTS OF QUALITY

Do you know your scrap rate (percentage of pieces or products that must be thrown out) and the costs associated with it?

Do you know your rework rate (percentage of pieces or products that must be reworked to be acceptable) and the costs associated with it?

Do you separate yield losses (raw material thrown away, often called "drop-off" or "short ends") from scrap? ___YES ___NO

Depending on your company's size, there may be significant savings opportunities in quality improvement. The only way to know how big that opportunity is, is to know the costs of quality now.

Operators can collect scrap and rework data. If the data collection is a burden, do it for a brief time to at least get approximate scrap and rework rates.

It is also important to separate yield waste from scrap. Short ends and drop-off are waste items that are not due to process errors, but are a result of design or purchasing decisions.

INFORMATION SYSTEMS

What are you using to control order entry, production and inventory control, and cost accounting?

- **Paper-based system**
- **PC-based accounting system**
- **PC-based manufacturing management system**
- **Networked manufacturing management system**

Any system is appropriate if it serves the manufacturing operations well. Many successful companies use on-the-floor visual systems to meet scheduling needs. They use computers to keep track of shipping schedules only.

Be very careful of letting the limitations of an accounting package control how you manage your shop. Make operational decisions for operational reasons. Don't let the tail wag the dog.

Keep in mind that, as you grow, a good networked system designed specifically for manufacturing can provide the most flexibility in scheduling your shop. There are systems for job shops, high volume parts producers, finished goods producers, and process industries.

One of the biggest challenges faced by small manufacturers is finding the time to fully implement all capabilities of computer systems. If you wish you could use all of your system, but don't know how, try first to contract with the original vendor for assistance and training.

If that is not possible, try contacting 3rd-party trainers who may be able to help you achieve your goal.

Conduct at least a basic data flow analysis before deciding on a type of new MIS system. And you may want to also get an unbiased, thorough review of popular manufacturing software before selecting a vendor.

Y2K COMPLIANCE

Are your computers, programmable logic controllers, and CNC production equipment all Year 2000 (Y2K) compliant? ___YES ___NO

Are your suppliers and customers Y2K compliant? ___YES ___NO

Whether or not you are looking at a new MIS system, check any computers and software you now use for Year 2000 (Y2K) compliance, including those that control production machines (e.g. CNC equipment and programmable logic controllers (PLC's)). Failure to be in compliance could cause all of your systems to crash and bring your organization to a halt!

Furthermore, ensure that your suppliers of raw materials, energy, and other services are also Y2K compliant. If they fail, you could be shut down. Finally, check with your major customers. If they are not Y2K compliant, they might fail to issue purchase orders.

COMPUTER LITERACY

Are many of your employees computer literate? (This question is not only about office and management employees, but also about shop supervisors and production workers.) ___YES ___NO

If you are considering computerizing your information system, or updating an existing computer system, you will want to plan for training for employees who are affected. The costs of training are often overlooked when budgeting for a new system.

MORE COMPUTER LITERACY

Are you computer literate yourself? ___YES ___NO

If you dislike using computers, does this affect your decisions on information systems? After you have looked over some of the other topics, ask yourself honestly whether your company would perform better with improved information systems.

It may even be worth your while to take some basic computer courses to become comfortable with what computers can do for you.

JOB INSTRUCTIONS

Does every production order contain sufficient information to permit operators to accurately complete their jobs (drawings or blueprints, written task and move instructions, estimated times, etc)? ___YES ___NO

Growing firms cannot afford to give detailed verbal orders. Accurate written instructions (especially for repeat jobs) save lots of management time. Typically, job instructions should include:

- Blueprints of what is to be produced
- Routing (sequenced list of work centers to produce the item)
- Any notes on methods or requirements that are not obvious from the blueprint or routing

LOAD IDENTIFICATION

Is there a separate job ticket for each load in cases where one job may include more than one load? ___YES ___NO

As order sizes grow, it is important to identify multiple loads to avoid multiple set-ups. "Travel tickets" should appear on each load, identifying not only part or product number, but which load. For example, a ticket might look like this:

Part No: 100567

Name: Widget

Load: 2 0f 3

FINANCE & ACCOUNTING

Using Financial Statements

Do you review your Income (profit-and-loss) Statement, Balance Sheet, and Cash Flow Statement each month? ___YES ___NO

Do you know how to evaluate these financial statements to determine how you are doing? ___YES ___NO

Waiting until the end of the year is too late to make corrections to operations or expenses that may be causing you to lose money. Even reviewing quarterly reports can allow losses to continue too long. Monitoring cash flow on a weekly basis may be appropriate in certain situations.

Most manufacturers are not thrilled with the thought of studying numbers from "bean counters". Yet knowing a few rules of thumb of financial analysis can help you to manage your operations more effectively. Be sure you know what each of the statements means.

CONTROL OF ACCOUNTING

Does a company employee conduct your accounting (or do you contract it out to a CPA or independent bookkeeper)? ___ Internal ___ External

If you contract out, does the accountant normally work with manufacturing firms? Manufacturing has unique accounting needs, such as job costing and in-process inventory.

Do you control the kind of reporting system used, or does the contractor control it? If you must contract accounting for the time being, be sure that your needs control the reporting and accounting system. Don't let the tail wag the dog!

If you are not already doing your own accounting in-house, that should be a goal.

JOB COSTING

Do you collect costs for each production run of a given part or product, assigning actual reported labor and actual material purchase prices? ___YES ___NO

If you produce components or parts for other manufacturers, do you compare each production run to your bid or quote? ___YES ___NO

For a very small company, a formal job costing system may be overkill. However, as you grow, you will want to know how you are performing on each job, so you can make corrections quickly.

One type of correction is to improve your bidding process to reflect what really happens when you do work for others. Not only can this help you take action to save money in the factory, it can also help improve the accuracy of your quotes.

PLANNING YOUR CHANGES

Now that you have taken a critical look at your company, are there any improvements you'd like to make? On a piece of paper, list things you want to do to improve your company, as a result of reading the topics in this Self-Assessment Guide.

Now look at the projects on that paper. There are too many for you to do right now, aren't there? To help you decide what to do first, try following these steps.

1. Grab another sheet of paper. Pick four questions from the list below that are the most important to you, and then write them on the paper:

Which project will most help me do the other projects if I do it first?

Which project will provide the greatest profit increase in the next year?

Which project will provide the greatest savings for the least cost over the next year?

Which project will satisfy my customers the most within the next year?

Which project will provide the greatest orders and shipments increase in the next year?

Which project will most reduce the amount of time it takes from receiving an order to shipping it?

Which project is the most affordable?

Which project will provide the biggest increase in production capacity?

Which project will best help my employees' morale?

Which project will best help to recruit and retain qualified workers?

2. Now ask yourself those four questions about each of the projects on the first sheet of paper. Rank the projects in order of how well they meet all four of your questions.

3. Look at the highest priority project. Can you plan and carry it out internally to your company?

___YES ___NO

KNOWING WHERE TO LOOK.

If you don't feel you can implement your projects internally, take a look at some of the resources on the next page. If you would like a manufacturing generalist help point you in the right direction, try calling one of the Manufacturing Extension resources listed in the last section.

Assistance Providers for Manufacturers

If you are looking for outside expertise to plan and implement your projects, refer to some of the resources below. In addition, there are three manufacturing extension organizations that can also help you find assistance. Try calling them.

RESOURCE DIRECTORIES

- "Growing a Business? There's Help" WI Department of Commerce
- 1-800-HELP-BUSiness or email: HelpBusiness@commerce.state.wi.us
- "Wisconsin Business Service Directory" WI Mfgrs. & Commerce, 608-258-3400
- (check your local library, too)

MANUFACTURING ASSESSMENT PROVIDERS

- Manufacturing Assessment Center WI Department of Commerce
  608-266-0165
- Wisconsin Manufacturing Extension Partnership WMEP
  608-240-1740
- Northwest Wisconsin Mfg. Outreach Center NWMOC
  715-232-2397
- Small Business Development Centers (SBDC)

  Eau Claire 715-836-5811

  Green Bay 920-465-2089

  La Crosse 608-785-8782

  Madison 608-263-7680

  Milwaukee 414-227-3240

  Oshkosh 920-424-1453

  Parkside (Kenosha/Racine) 414-595-2189

  Platteville 608-723-6460

  Stevens Point 715-346-3838

  Superior 715-394-8351

  Whitewater 262-472-3217

  SBDC's offer business feasibility work shops as well as general business assistance and counseling in business plan development, accounting, marketing, and management.

TRAINING AND PROFESSIONAL DEVELOPMENT

- Wisconsin Technical College System 1-800-472-0024 or call your local technical college
- UW-Madison Management Institute 608-262-2155
- UW-Madison Engineering Professional Development 608-262-2061
- UW-Milwaukee Management Institute 414-276-2413

Technical Colleges can provide customized worker training, either at your site or on campus. University outreach seminars and workshops are offered regularly at several sites.

TECHNICAL ASSISTANCE

Technical College faculty can often provide hands-on technical assistance for shop floor issues on the same basis as customized training. Call your local college for more information.

Each University campus has faculty members who can help manufacturers. One way to find them is to contact the SBDC (see above) nearest you. In addition, several business and engineering schools have offices designated to provide this service to companies.

- UW-Stout Stout Technology Transfer Institute (STTI), 715-232-2397
- UW-Madison University-Industry Relations (UIR), 608-263-2840
- College of Engineering Industrial R&D, 608-262-5215

The Wisconsin Manufacturing Extension Partnership provides professional assistance in planning and implementing strategies to improve your competitive position. WMEP actively serves most of the state from Marinette to Kenosha to Platteville. WMEP is part of the nationwide Manufacturing Extension Partnership program sponsored by the National Institute for Standards and Technology (NIST). Contact:

Wisconsin Manufacturing Extension Partnership

2601 Crossroads Drive, Suite 145

Madison WI 53718-7923

Phone: (608) 240-1740

Fax: (608) 240-1744

If you are located in the northwestern one-third of Wisconsin, from La Crosse to Rhinelander, contact the Northwest Wisconsin Manufacturing Outreach Center. Like the WMEP, the NWMOC provides professional assistance in planning and implementing improvement strategies. NWMOC is also part of the nationwide Manufacturing Extension Partnership program sponsored by the National Institute for Standards and Technology (NIST). Contact:

Northwest Wisconsin Manufacturing Outreach Center
UW - Stout
103 First Avenue West
Menomonie, WI 54751-0790
Phone: (715) 232-2397
Fax: (715) 232-1105

If you would rather contact the Manufacturing Assessment Center directly, we will help connect you with whatever assistance you need. The Wisconsin Department of Commerce is a partner in Wisconsin's manufacturing extension programs. Contact:

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